Independent Science Advisory Process for California Desert Renewable Energy Conservation Plan

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A 501(c)(3) non-profit organization.
Providing science for efforts to conserve biological diversity.

Desert Renewable Energy Conservation Plan

- A federal **Habitat Conservation Plan (HCP)** under ESA
  - Provide for "incidental take" of federally listed species
  - No **explicit** requirement for independent science input

- A state **Natural Communities Conservation Plan (NCCP)**
  - Provide for incidental take of state-listed species
  - Conserve multiple species and the habitats they depend on at a landscape scale:
    - Listed and unlisted species
    - Natural communities
    - Ecosystem processes
  - Contribute to species recovery and prevent future declines
  - Provide for economic land uses and protect property rights

The NCCP Act of 2002

- Replaced the experimental 1991 act for south-coastal California with a statewide version.
- Provides more explicit standards based on lessons learned from the SoCal experience, including:
  - A requirement for "inclusion of independent scientific input to assist the department and plan participants…"
- However, does not specify a *process* for science input.

CDFG (2002): "Guidance for the NCCP Independent Science Advisory Process"

- Defined a science advisory process emphasizing:
  - *Early* science input (not post-hoc peer review)
  - Focus on *biological resources*
  - Focus on *principles* to guide planning and reduce uncertainties
- Stressed *independence* of advisors:
  - No conflicts of interest
  - No decision authority
  - Not a government-appointed "panel" (i.e., no Brown Act requirements)
- Described advisors' roles:
  - Do provide input and review of *data, principles, methods*, etc.
  - Do *not* advocate for certain plan *policies, values*, etc.
  - Do *not* comment on ultimate *plan adequacy*
- Described roles for:
  - Science facilitator
  - Lead Scientist

Sometimes combined

NCCP Act Requires Independent Science Input on Four Topics:

- Principles for Addressing Data Gaps and Uncertainties
- Principles for Conservation and Reserve Design
- Principles for Conserving Specific Target Species and Natural Communities
- Principles and Framework for an Adaptive Management and Monitoring Program

What's missing?

- Principles for Analyzing Plan Effects

General Steps in Science Advisory Process

- Select Facilitator/Lead Advisor
- Select Advisors (and alternates) to cover range of expertise
- Review available technical information and hold science advisors' workshop(s)
- Produce science advisors' report(s)
- Respond to post-hoc questions (via Facilitator) and clarify advice as needed.

DRAFT List of Independent Advisors

- Wayne Spencer (CBI) – Wildlife conservation biology, reserve design, mammals.
- Reed Noss (U Central Florida) – General conservation biology, reserve design.
- Kristin Berry (USGS) – Desert wildlife ecology, tortoise, Mohave ground squirrel (and more).
- Cam Barrows (UC Riverside) – Desert ecology, reptiles, risk assessment.
- Kimball Garrett (LA Natural History Museum) – Birds.
- Ted Weller (US Forest Service, Pacific Southwest Research Station) – Bats and wind turbines.
- Richard Redak (UC Riverside) – Invertebrates.
- Todd Esque (USGS) – Desert community ecology, vegetation, fire, invasive species, desert tortoise.
- Chrissy Howell (PRBO Conservation Science) – Spatial analyses, GIS, predictive modeling, bird ecology.
- Scott Abella (Northern Arizona University) – Restoration ecology.
- Robin Kobaly (SummerTree Institute) – Botany & plant ecology.
- Robert Webb (USGS) – Desert disturbance & recovery processes.

Additional Peer Input

- Science Advisors are encouraged to seek additional peer input for:
  - Greater taxonomic and geographic coverage,
  - Additional specialties,
  - Etc.
- Advisor recommendations will be peer reviewed.

Schedule

- April 22-23 (likely): Initial Science Advisory Workshop
  - Focus on maps:
    - Filling data gaps and addressing uncertainties
    - Approaches to siting developments and conservation actions
  - Rough Agenda:
    - April 22 – (Public) Orientation Session with presentations to advisors followed by Q&A
    - April 23 – (Closed) Independent Advisors' deliberations
- Mid May: Draft Initial Science Recommendations
- Late May: Obtain peer review from additional scientists
- Early June: Finalize Initial Recommendations
- TBD: Additional workshops or ad hoc input?

Example Questions for Advisors

- Are the planning boundaries appropriate?
- Should the region be subdivided, and how?
- What species and communities are likely to be affected and how can their conservation needs be met?
- What key data gaps or uncertainties need to be addressed, and how?
- What model(s) are most appropriate for addressing data gaps and predicting plan effects?
- What guidelines are appropriate for siting energy facilities to minimize harm to covered species?

Specific questions can be submitted for consideration to Bob Copper, Director of DRECP.

Additional Information

- Existing NCCP science advisors' reports: www.dfg.ca.gov/nccp/science.htm
- CDFG guidance for NCCP independent science advisory process:

  www.dfg.ca.gov/nccp/scienceprocess.pdf
- USFWS policies concerning use of science: www.fws.gov/endangered/policies/index.html